

No 14

On *Gynanche Trachealis*by ———— Peete
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On Cynanche Trachealis

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I have adopted the term Cynanche Trachealis from among the many synonyms of the disease because it is in general use and appears to me equally proper with any that has been used.

No accurate account of it was published until about the middle of the eighteenth century. It would seem improbable that a disease so strongly marked as Cynanche Trachealis and whose pathognomonic symptoms are so particularly striking should have passed unnoticed by the ancients if it had really existed; and yet when we consider the causes which produce the disease we ought not perhaps to doubt that it had existed in some of those countries in which it is now common many centuries before it was at first noticed in the writings of Physicians.

The first regular account of croup was published about the year 1749, by Martin Ghiesbreght an Italian physician, the laborious works of Michaelis appeared about thirty five years later. Since that time it has been regularly treated of by physicians of considerable eminence.

It appears to be the received opinion that there are two distinct species of the disease: one is termed *larynx trachealis spasmodica*, and is supposed to depend solely upon a spasmodic affection of the muscles of the glottis. the other *larynx trachealis humida* by Dr Rush, and is attended with inflammation of the trachea and coagulating lymph is sometimes thrown out, which assumes the form of a membrane lining that tube.

If I were guided by my own observation, I should have no hesitation in saying that I was always

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in the commencement purely spasmodic. I
 should be led to this conclusion because all the
 cases which I have seen in the Southern parts
 of Virginia, the disease came on suddenly after
 the child had been in bed a short time, no in-
 flammation could be perceived upon inspection
 in the fauces, there was no soreness of the throat
 or difficulty in deglutition and the disease was
 generally removed in eight or nine hours and in
 some instances less than one hour, and without the
 expectoration of any viscus or membranous substance.
 The disease does not always make its attack when
 the patient is in bed, for I once knew a boy about
 sixteen years of age attacked with it while follow-
 ing his daily employment, he went out to work per-
 fectly well in the morning about 11 o'clock he was
 suddenly taken with difficulty of breathing, with the
 peculiar serous inspiration that attends the disease

which was so sudden and violent in its attack that he fell on the ground and was taken up and carried home, he was relieved by an emetic and the warm bath.

When the disease was not removed by the antispasmodic remedies, it either terminated fatally or was succeeded by the inflammatory or humoral kind. I shall consider the two diseases separately and first, *c. Trachealis spasmotica*.

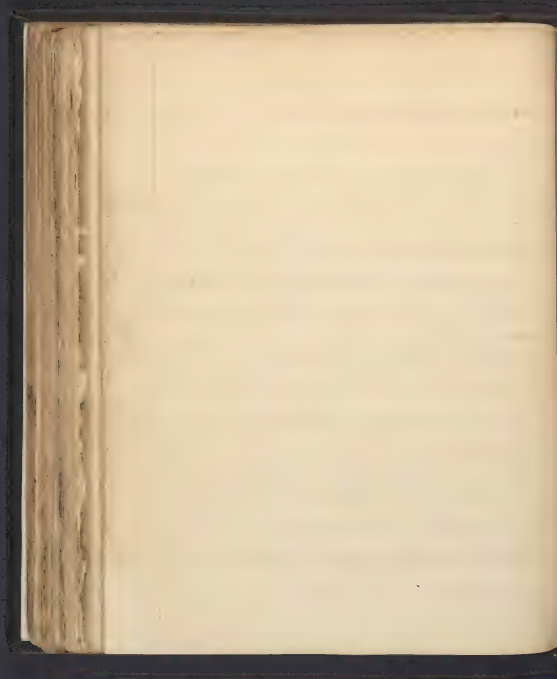
Dr. Cullen classifies it in class Pyrexia order Phlogosia and defines it in the following manner.

Difficult respiration inspirations loud voice hoarse cough sharp almost no visible swelling in the fauces, swallowing not very difficult fever Sympnocha.

The peculiar sound of the voice, in coughing and in respiration, the great difficulty in breathing while the power of deglutition remains unimpaired.

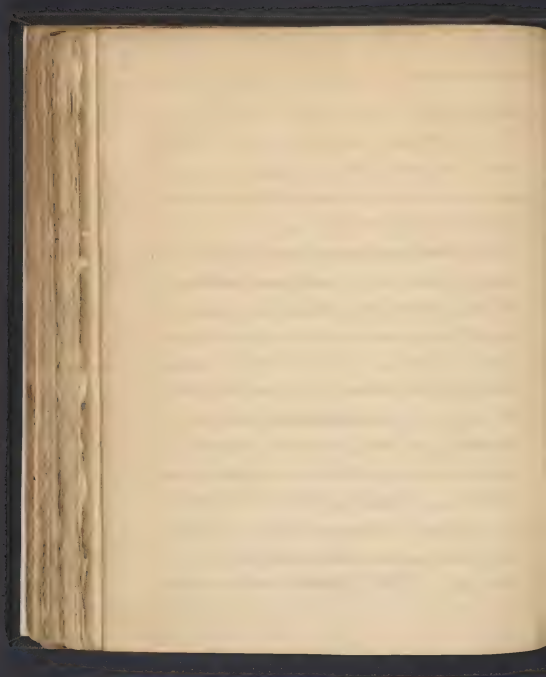
paired and the absence of all appearance of inflammation render the Diagnosis perfectly easy, The sound of the voice emitted by persons labouring under Croup, has been compared to that of several animals as the barking of a young dog. By others to the sound made by blowing thro' a brazen trumpet. but I think it might ~~be~~ more properly be compared to that harsh and disagreeable sound, which is made by certain parts of the glottis when endeavouring to dislodge from the throat a grain of corn or any other obstructing matter of considerable magnitude.

It appears that no age is entirely exempt from the disease, altho' it attacks children more frequently than adults. - Children are most liable to be affected by it after they are weaned and before the time of puberty.



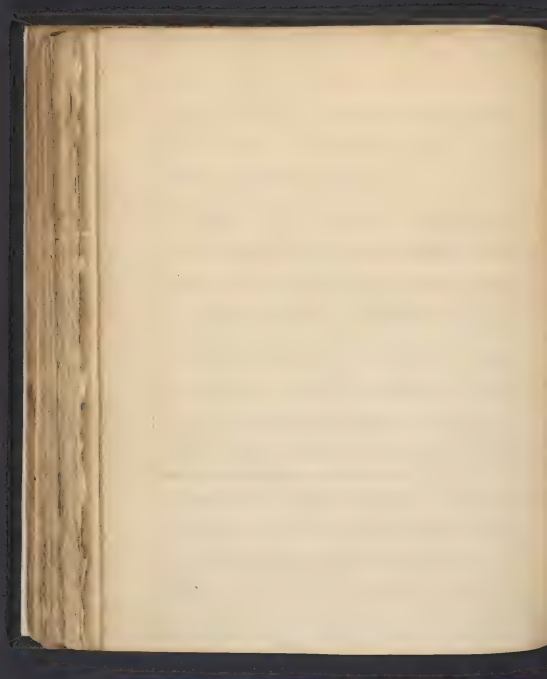
yet these have sometimes occurred during the period of lactation, and sometimes the lungs frequently in adults - It is remarked that the earlier children are weaned the more liable they are to be affected by croup.

"It has been supposed by some that 'the croup' occurs as often in the adult as in children, but that adults have the power of expectorating the lymphatic exudation before it becomes a solid membrane - "But Dr. Whymus observes" that if this was the case we should at least hear "the croupy cough and peculiar voice and "coughing, for these precede the formation of "the membrane - "Children of all ages up to the time of puberty have died of croup, and yet a boy of ten years old has as perfectly as he can ever have the power of expectoration. The Doctor rather supposes



It is less frequent occurrence in the adult to "de-
 pend" on that change which happens in the
 constitution at puberty, and in a more pecu-
 liar manner on the change which the upper
 part of the windpipe undergoes. The al-
 teration of the voice from soft & feminine
 to firm and manly evinces that a material
 alteration takes place. He therefore supposes
 that the greater degree of tone with which the
 cruet is endowed enables it to resist those ex-
 citements which would have operated on the
 same organ in a less and less perfect state.

No particular climate, season or state of the
 atmosphere is necessary to its formation, al-
 tho' it occurs more frequently in the tempe-
 rate climate of Virginia than in the cold
 than states, in the changeable weather of
 spring and autumn rather than in the

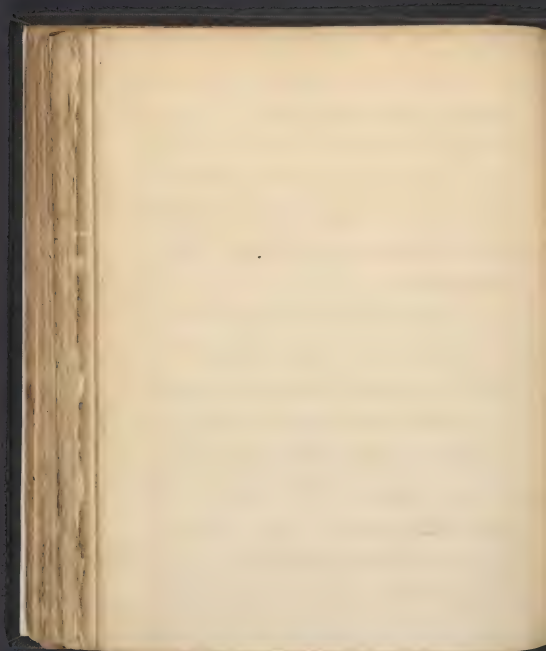


Summer and winter months, in a cold moist atmosphere rather than in a dry warm one -

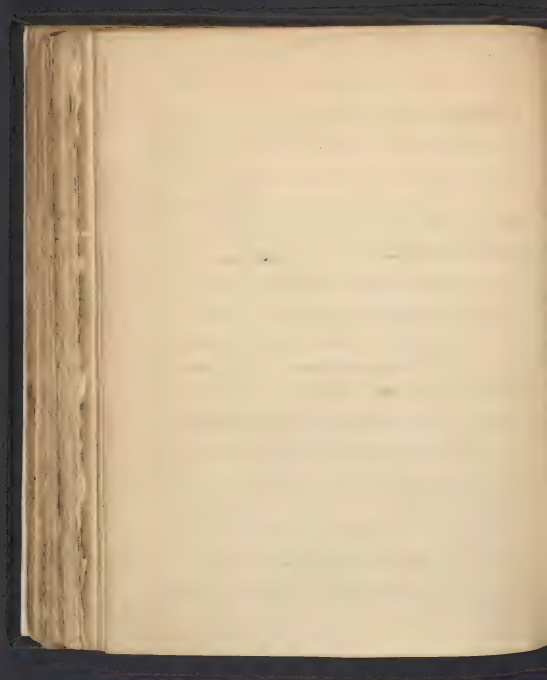
From the observations of medical authors it appears that a low damp atmosphere is peculiarly favourable to the production of the disease - but it not unfrequently occurs in high healthy situations -

It is remarked by Dr Keay that it is frequent in low situations exposed to air passing over large bodies of water and that it is more especially the disease of seaport towns - We are informed by Dr Crawford that it formerly prevailed much in Scotland in an extensive plain bounded by the river Tay, called the ^{Carse} course of Gowrie; but he adds "Hæc pluvies vero super desiccatæ"
"Sed, et variis occurrunt morbus"

There is no place in the United States betw



adapted to the production of croup than
 Norfolk and Portsmouth, Va. and I may
 add in which it is more prevalent. I was
 informed by a physician in Portsmouth
 that not less than nine cases of croup occurred
 in that small town in one week during a
 very wet spell - all of which he says were of
 the spasmodic kind - he says they were
 cured by or by spasmodic remedies, such as
 warm bath, the inhalation of the steam
 of hot vinegar &c. He says most of his
 patients were children of a weak and
 feminine habit of body - which concurs
 with my own observations, I have seen it at-
 tack the healthy and robust children but
 much less frequently than the weak and
 feminine - the disease generally came on in
 the night after being exposed to cold and wet feet.

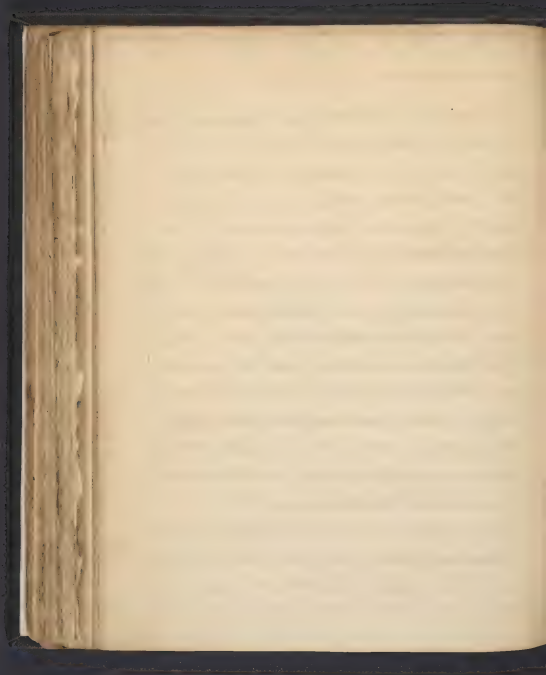


The chief exciting cause of croup is cold applied to the body in some way. It is not improbable says Dr Wilson, that certain states of the alimentary canal may assist in producing croup. Dr Underwood in his treatise on the diseases of children observes that the change from milk to food of harder digestion is probably sometimes cause of croup. Dr Millar ranks a luxury of the solids, indigestible ingredients in the food and a morbid weakness of the digestive organs, as exciting causes of croup.

I must only mention some of the most striking symptoms. In the course of the run of the patient is awakened with a rough and hoarse cough peculiar to the disease. He appears in immediate danger of suffocation and each inspiration is attended with a shrill whistle

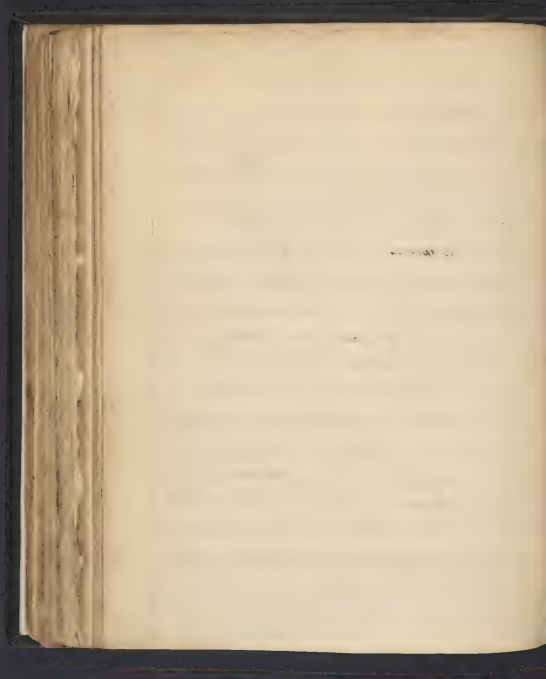


ring sound. The face is most commonly flushed and sometimes appears livid the pulse is quick and frequent, and great thirst attending. With a continuance and increase of these symptoms the patient is often carried off in a few hours. At other times the disease is often protracted to the third or fourth day when this is the case it generally runs into the inflammatory kind. It has been the opinion of some that these two diseases were one and the same disease. Cullen says "though this disease manifestly consists in an inflammatory affection it does not end either in suppuration, or gangrene. The peculiar and troublesome circumstances of the disease seem to consist in a spasm of the muscles of the glottis which induces suffocation and prevents the common consequences of inflammation."



But dissections have shown that patients have died of this disease when no vestige of inflammation could be perceived, and therefore ^{upon} what else can the disease depend, than upon a spasmodic contraction of the muscles of the glottis.

From this species generally terminating in the inflammatory kind, and the symptoms accompanying it, some have supposed that there is the forerunner of the inflammatory species, but as instances have occurred in which the patient has died without any inflammatory symptoms, and death taking place so suddenly, and patients being cured merely by inhaling the steams of hot vinegar, leaves no doubt in my mind that there are two distinct species of the disease. From the circumstances mentioned there remains no doubt but that this species of the disease is

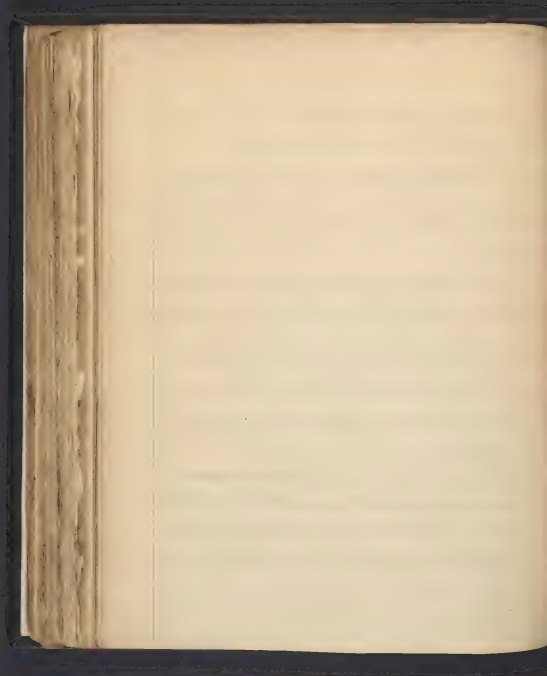


purely spasmodic...and of course our indications of cure would be to relieve spasm.

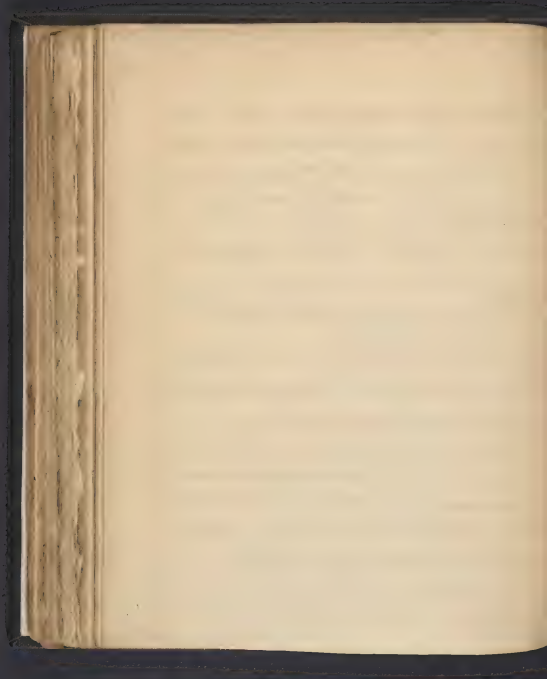
1. To bloodletting appears to be a popular remedy in spasmodic affections. I should have no hesitation to bleed very copiously, even ad deliquium.

2. Emetics have been found extremely serviceable either in nauseating doses or in such a manner as to excite vomiting. They may act locally on the glottis - but as our great object in this case is to overcome the spasm I should give them in small doses so that they might act as relaxants.

3. The warm bath was always much relied on and was always attended with the most beneficial effects. In one case which I witnessed the spasm was entirely removed in fifteen minutes after it was used.



- 4 Inhaling the vapour of warm water or Vine
gar from the spout of a teapot has been used
with the utmost benefit. It is probable many
cases might be cured by this remedy alone.
 5. An aqueous solution of iuproctum taken by the
mouth or injected in the rectum has been often
used with the utmost advantage -
 6. Blisters might be used especially if the dis-
ease be of long standing.
 7. If the disease proceeded from any disorder of
the alimentary canal a purgative therewith
be of the utmost importance -
- The prognosis of any disease is difficult that of
Croup more so. The spasmodic affection at one
time so violent as to threaten immediate suffo-
cation may sometimes be relieved in a few mi-
nutes - We should always doubt the event
even under the most favourable circumstances.

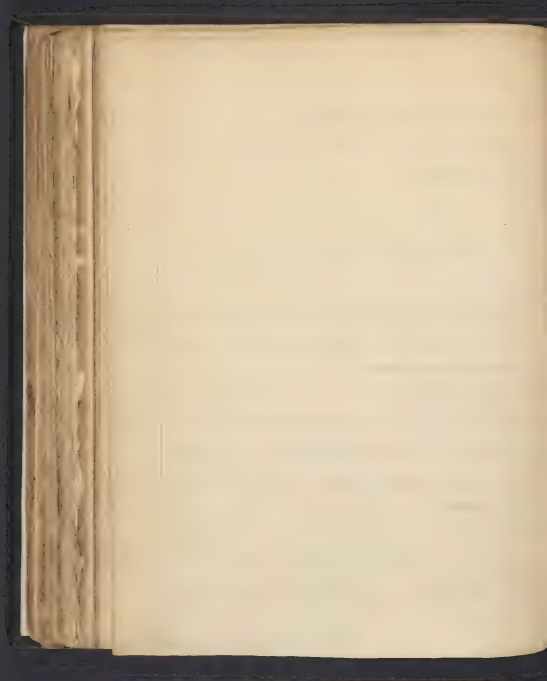


ces and never cease to hope and use our ut-
most endeavours as long as a spark of
life remains.

Cynanche Trachealis Humida

The other species to which Dr Rush gave the
name *Cynanche Trachealis Humida* is known
by its making its advances gradually and com-
mencing with pyrexia and catarrhal symptoms
some days previous to any local affection, by its
usually coming on in the day time, by being at-
tended with a muco serous discharge from the trachea
by not yielding to antispasmodic remedies, and lastly
by its continuance for several days without in-
termittence or abatement of the symptoms.

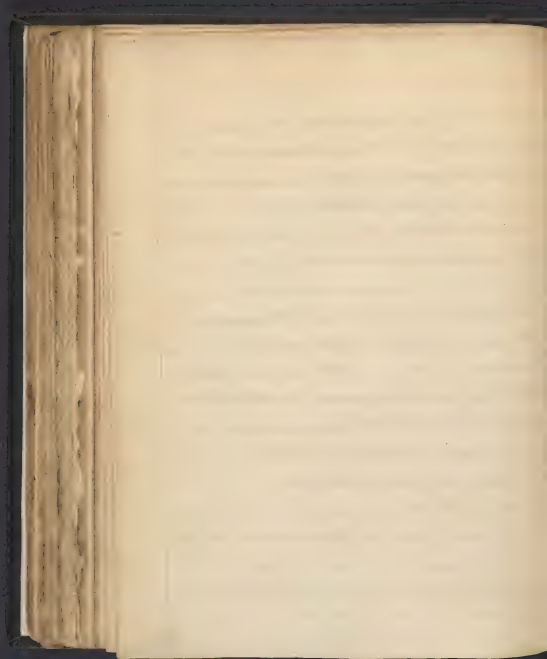
When the disease is completely formed the vo-



species very near resemble each other, there are however some marks of distinction between them. In the spasmodic kind, there are evident exacerbations and remissions but there are none in the chronic. In the humid, the parts appear somewhat tumid and a white mucus is seen upon inspection in the fauces. In some instances a white membrane of considerable tenacity is found lining the windpipe.

It arises says Whym a little under the larynx and is sometimes prolonged into the division of the Trachea, and generally a quantity of white fluid like matter with which the lungs are filled is seen gurgling up, none of these circumstances occur in the spasmodic species of the disease.

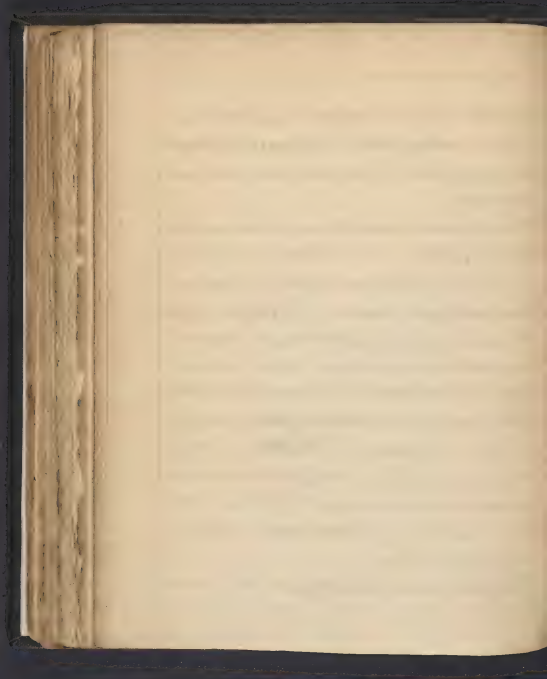
It appears that this species belongs more particularly to the Northern climates. It agrees best with the descriptions given of it by most European writers and I have been informed by a physician of this



city - that he has rarely seen any, but the true
inflammatory species. Whereas in the Southern
parts of virginia the spasmodic kind occurs most
frequently.

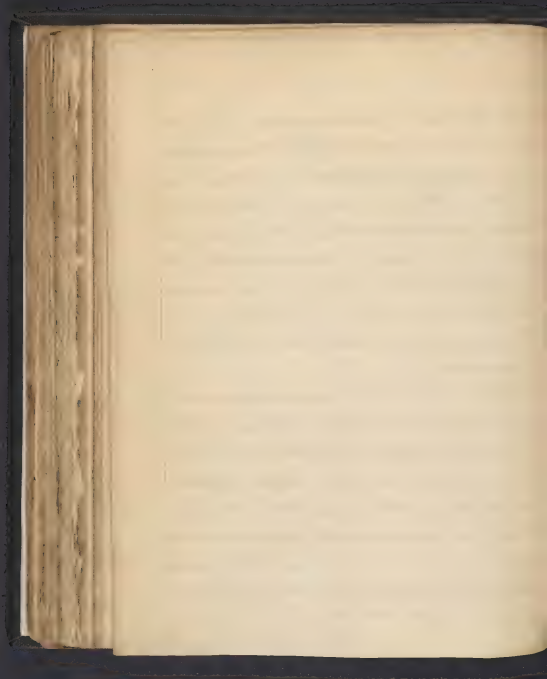
It is also said to attack the most robust and heal-
thy looking children, whilst the spasmodic kind affects
more frequently the weak and those who have been
inundated by other diseases. Dr Whayne says that
this disease is more especially the disease of sea port
towns, but it is found to occur almost as frequent-
ly in inland situations, as in sea port towns. It very
often prevails as an epidemic affecting not only
children but adults. Dr Bullen says that he
has never seen the disease attack a patient above twelve
years old but in this country there ^{are} innumerable in-
stances of its having attacked adults and put an
end to their existence.

If blood be drawn liberally from the commence-

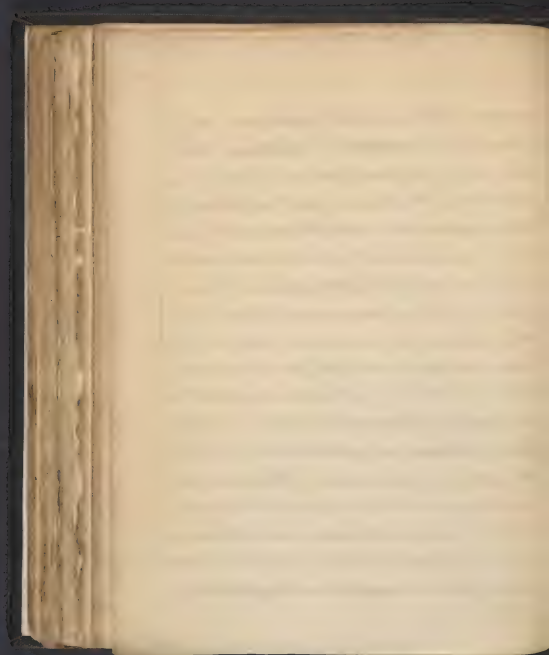


ment the relief is often immediate. Very often after it has arrived at its height the sequel appears to be a retrogression of the disease; a perspiration breaks out the fever and cough abate and the disease gradually disappears. When it has continued for several days the chest is sometimes relieved by the expectoration of a white viscid substance. Sometimes it assumes a chronic ^{form} continuing for many days the patient sweats and then throws up portions of membrane.

Various have been the opinions advanced with respect to the formation of this membrane. The first probable opinion suggested on this subject was that proposed by Dr. Home - He believed the first seat of the disease to be in the mucous glands of the bronchia; which he supposes are excited to pour out an unusual quantity of mucus. When these happens he observes a very great



secretion of this coagulable fluid from the glands of the trachea. in children they are, either not sufficiently attentive or too young to spit it up. The thinner parts are carried off during expectoration, while the remainder is thickened and compressed by the obstruction which the narrowness of the glottis exposes to the exit of the air from a larger canal. Every circumstance encourages its secretion into a solid firm membrane. This he regards as the proximate cause of the disease, but in my opinion it is only the effect of violent inflammation; that is coagulating lymph is thrown out which becoming inspissated assumes the form of a membrane. If the membrane was formed by a secretion of the mucus glands it ought to be found in the mildest forms of the disease before any swelling took place or before the inflammation had transcended the secretory function of

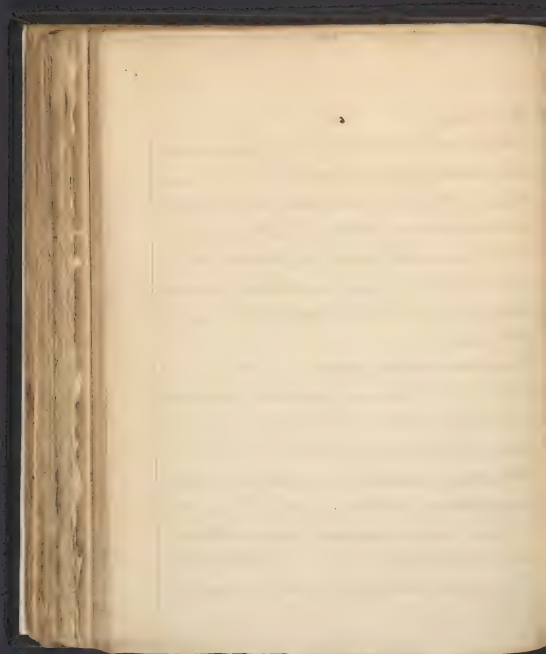


these glands.

It is the opinion of some that the suffocation and ap-
 pteous breathing in this disease depend upon a mem-
 brane, in the trachea obstructing the passage of
 air, but this opinion I believe is wholly unfounded
 as these symptoms ^{of} most always occur and the mem-
 brane is rarely to be met with. Then they must de-
 pend upon a spasmodic constriction of the muscles
 of the glottis.

It is asserted that this species is very often partial-
 ly spasmodic. Of course our indications would be not
 only, to remove the inflammation but also to
 relieve the spasmodic affections.

4th Bloodletting, should be employed according to the ur-
 gency of the case, it has been recommended in some
 instances to bleed, "ad deliquium animi." When the
 situation of the patient is such as to prohibit the fur-
 ther use of this remedy from the arm, it would be pro-



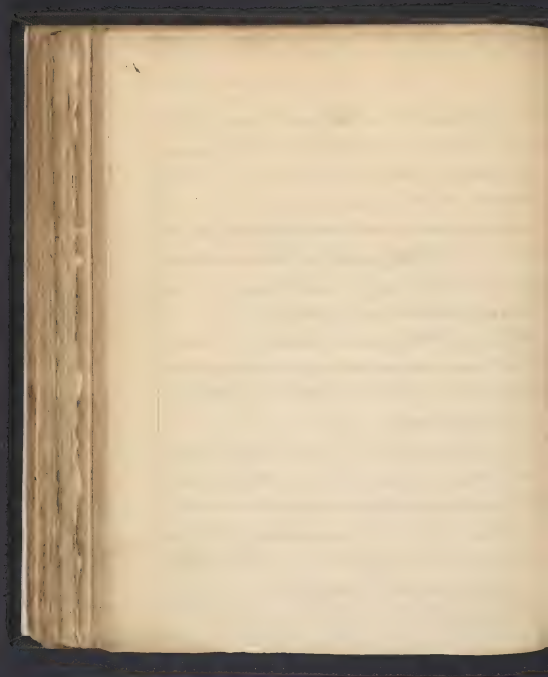
per to apply eight or ten leeches in the vicinity of the
glottis. In some cases of very fat children it is impossi-
ble to bleed from the arm, in these cases it would be
proper to open the jugular vein.

2nd Emetics given in such a manner as to produce re-
miling are essentially useful. Of these the Tartar
Emetic is most employed and I may say its vir-
tues excel all others in this disease.

3rd The warm bath and the inhalation of the steam
of hot vinegar and water ought always to be em-
ployed this alone has been known to stop the
progress of croup.

4th Purgatives as a part of the general depletion, plan
should be used according to circumstances.

5th The application of blisters and sinapisms to the
neck has been recommended, and no doubt from
their good effects in similar diseases but what they
might be used with success in this.



Calomel has been recommended by some writers in
 Croup very strenuously, they say it induces a new ac-
 tion in the trachea this it may do but I should ne-
 ver employ it before I had used emetics and bloodlet-
 ting, if these should fail I would then resort to
 Calomel. Dr Hamilton was a strong advocate
 for mercury in Croup. He tells us in every instance
 that he administered it previous to the occurrence
 of lividness of the face and other mortal symptoms
 he has completely succeeded in curing the disease.
 His mode of employing it is after having previous-
 ly put the child into a tub of water heated to 96° or
 wrapt up in a blanket wrung out of hot water to
 give it a dose from one to five grains according
 to the age of the patient every hour until the
 breathing is evidently relieved, and is to be gra-
 dually discontinued.

The Polyga Senega is to be given as an expectorant,
 Polygala

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5th As a last resort the operation of Tracheotomy is
to be performed. Desfontaine suggested the idea
of introducing an elastic catheter thro' the nose
into the trachea in this disease. If the passage
is sufficiently large to admit of its introduction
it ought always to precede the operation of Tra-
cheotomy.

Philosophy of the mind is a branch of metaphysics
which treats of the nature of the soul and its
powers. It is a science which is not only
interesting in itself but also useful in
the conduct of life. The knowledge of the
mind is necessary to the attainment of
virtue and happiness. It is the foundation
of all other sciences. The study of
philosophy is a noble and useful
pursuit.